

**REMARKS**

Claims 24-26, and 28-41 are pending in this application. By this Amendment, the title and claim 24 are amended. No new matter is added. Support for the claims can be found throughout the specification, including the original claims, and the drawings. Reconsideration in view of the above amendments and following remarks is respectfully requested.

**Explanatory Material**

The present application is directed to a method of generating Digital Items for electronic commerce activities. A Digital Item as defined by the MPEG-21 Standard is a fundamental unit of distribution and transaction of multimedia. The International Standard Organization (ISO) set forth to define a normative open framework (the MPEG-21 Standard) for multimedia delivery and consumption for all the players in the delivery and consumption chain. By standardizing the descriptive presentation of multimedia, that is, by creating a common language for describing and defining multimedia for delivery and consumption of the multimedia, multimedia can be, for example, accessed, delivered, managed, and protected by many different users.

In the document cited by the Examiner in the Office Action, the ISO initially defined common terms for use by multiple standard developers, such as the term "Digital Item," as well as development goals. However, this document does not disclose or suggest the Digital Item definition model disclosed in the present

application or the claimed method of generating Digital Items as recited in the claims. In fact, the document at page 12 explicitly states that “there is no standard model or representation for a Digital Item.” The present application describes such a Digital Item definition model and claims a method of generating Digital Items.

For example, referring to Fig. 1, the present application defines a Digital Item as content (a multimedia resource) and metadata (data for describing the multimedia resource). Further, the present application defines an atomic Digital Item as atomic content and corresponding metadata, or a Digital Item that is not further divided.

The Digital Item definition model as disclosed in the present application includes three layers. A component, the lowest layer, is defined as a resource and its corresponding metadata (all its relevant descriptors bound together). An item, the secondary or middle layer, includes different components and/or items bound together to relevant descriptors. Thus, multiple components and/or items having relevant descriptors are bound together and to the relevant descriptors and are referred to as a component. A container, the highest layer, includes groups of items and/or containers bound to relevant descriptors.

The model or Digital Items are presented in the form of data structures. Because the highest layers include grouped elements (Digital Items) or data structures from the lower layers, the Digital Items of the model may be said to be recursive or recurrent. The Examiner is directed to the attached definition of “recursive.”

**Priority Document**

A translated copy of the priority document is attached hereto as requested by the Examiner.

**Rejection Under 35 U.S.C. §112, First Paragraph**

The Office Action rejected claims 24-26 and 28-41 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. More particularly, the Examiner asserts that the specification fails to show how the data structures are generated recursively and that the specification does not discuss the term recurrent but refers to the structure of a Digital Item not how the item is constructed. The rejection is respectfully traversed.

As set forth above, because the highest layers include grouped elements (Digital Items) or data structures from the lower layers, the Digital Items of the model may be set to be recursive or recurrent. Accordingly, the rejection should be withdrawn.

**Rejection Under 35 U.S.C. §112, Second Paragraph**

The Office Action rejected claims 24-26 and 28-41 under 35 U.S.C. §112, second paragraph, as being indefinite. The rejection is respectfully traversed.

The Examiner argues that: 1) “the claims are generally narrative and indefinite, failing to conform with current U.S. practice”; 2) “applicant fails to clear[ly] define the relationship between item[,], container [,] and component [,] and [their] relationship to the digital item, types of components or items do not provide

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any clear definition [as to] the content of those types of objects”; 3) the claims contain omitted elements including “the features of the data structure, as defined by the specification” which are “necessary for the data structure to operate.”

However, as discussed above, the present application discloses a Digital Item definition model and a method of generating Digital Items. In particular, independent claim 24 recites a method of generating Digital Items for electronic commerce activities of multimedia data embodied in a computer-readable medium. The method includes selecting a resource for electronic commerce activities of multimedia data, and generating for the resource an atomic Digital Item, which is not further divided, and a packaged Digital Item. The remaining portion of claim 24 further define the Digital Items.

Further, as discussed above, and as clearly recited in the claims, the atomic Digital Item as a lowest layer is defined as component, the packaged Digital Item as a middle layer is defined as item, and/or packaged Digital Items as a highest layer is defined as container. Further, component is defined to include the selected resource, an anchor for designating the selected resource, optionally a descriptor for describing details of the resource and optionally an opCondition for describing operational use conditions of the resource. Item is defined to include packaged content including at least one component or item or anchor, optionally a choice for the packaged content, and optionally a descriptor for describing details of the packaged content. Container is defined to include packaged content including at

least one item or container or anchor, and optionally a descriptor for describing details of the packaged content.

Accordingly, it is respectfully submitted that the claims are clear and definite, clearly define the relationship between component, item, and container, and include the necessary elements, and thus, meet the requirements of 35 U.S.C. §112, second paragraph. Therefore, the rejection should be withdrawn.

**Double-Patenting Rejection**

The Office Action rejected claims 24-26 and 28-41 provisionally on the grounds of non-statutory obviousness-type double patenting as being unpatentable over claims 1-34 of co-pending Application Serial No. 10/102,895. The rejection is respectfully traversed.

Claims 1-34 of co-pending Application Serial No. 10/102,895 do not disclose or suggest the Digital Item definition model disclosed in the present application or the method of generating Digital Items as recited in the claims. Accordingly, the rejection should be withdrawn.

**Rejection Under 35 U.S.C. §101**

The Office Action rejected claims 24-26 and 28-41 under 35 U.S.C. §101 because the claimed invention is allegedly directed to non-statutory subject matter. The rejection is respectfully traversed.

The U.S. Patent and Trademark Office interim guidelines for examination of patent applications for patent subject matter eligibility discuss data structures and

computer programs in Annex IV--Computer-Related Nonstatutory Subject Matter. The guidelines state that this “[d]escriptive material can be characterized as either ‘functional descriptive material’ or ‘nonfunctional descriptive material’.” It further states that “‘functional descriptive material’ consists of data structures and computer programs which in part functionality when employed as a computer component”. It then states that “[n]onfunctional descriptive material” includes but is not limited to music, literary works, and a compilation or rearrangement of data. The guidelines indicate that “[b]oth types of descriptive material are nonstatutory when claimed as descriptive material per se.” However, “[w]hen functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of this descriptive material to be realized.”

In the present case, independent claim 24 has been amended to recite a method of generating Digital Items for electronic commerce activities of multimedia data embodied in a computer-readable medium. It is respectfully submitted that independent claims 24-26 and 28-41 are directed to statutory subject matter. The method of independent claim 24 of generating Digital Items for electronic commerce activities of multimedia data embodied in a computer-readable medium includes selecting a resource for electronic commerce activities of multimedia data, and generating for the resource an atomic Digital Item, which is not further divided, and a packaged Digital Item. The remaining portion of claim 24 further define the

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Digital Items. This claim is statutory subject matter because the claimed steps embodied in a computer-readable medium are capable of causing functional change in a computer. Accordingly, the rejection should be withdrawn.

**Rejection Under 35 U.S.C. §102(f)**

The Office Action rejected claims 24-26 and 28-41 under 35 U.S.C. §102(f) because the applicant did not invent the claimed subject matter. The rejection is respectfully traversed.

As set forth above, in the document cited by the Examiner in the Office Action, the ISO initially defined common terms for use by multiple standard developers, such as the term “Digital Item,” as well as development goals. However, this document does not disclose or suggest the Digital Item definition model disclosed in the present application or the claimed method of generating Digital Items as recited in the claims. Rather, the inventors of the present application developed the Digital Item definition model disclosed in the present application and the claimed subject matter. Accordingly, the rejection should be withdrawn.

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Docket No. **HI-0070**

**Rejection Under 35 U.S.C. §102(b)**

The Office Action rejected claims 24-26 and 28-41 under 35 U.S.C. §102(b) as being anticipated by MPEG-21 Part 1 (ISO/IEC JTC1/SC29/WG11 in 3500 (dated 2000-09-03)). The rejection is respectfully traversed.

As set forth above, this document at page 12 explicitly states that “there is no standard model or representation for a Digital Item.” Thus, this document does not disclose or suggest the Digital Item definition model disclosed in the present application or the claimed method of generating Digital Items as recited in the claims. Accordingly, the rejection should be withdrawn.

In view of the foregoing amendments and remarks, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

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Docket No. **HI-0070**

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To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this, concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,  
FLESHNER & KIM, LLP

Daniel Y.J. Kim  
Registration No. 36,186  
Carol L. Druzbeck  
Registration No. 40,287

Attachments:      Definition of "Recursive"  
                         Translation of Priority Document

P.O. Box 221200  
Chantilly, Virginia 20153-1200  
(703) 766-3701 CLD/kah:knv

**Date: July 14, 2006**

**Please direct all correspondence to Customer Number 34610**



# recursive

(data structure)

**Definition:** (1) A data structure that is partially composed of other instances of the data structure. For instance, a *tree* is composed of smaller trees (*subtrees*) and *leaf nodes*, and a *list* may have other lists as elements. (2) An *algorithm* in which functions might call themselves. For instance, *quicksort* or *heapify*.

See also *recursion*.

*Note: Infinite data structures may be represented by having a tree include (point back to) itself recursively, a list include itself, etc. Recursive data structures are often best handled with a recursive algorithm, or an algorithm using recursion.*

Author: PEB

## More information

See the entry at recursion for links, explanations, exercises, cross references, etc.

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Go to the [Dictionary of Algorithms and Data Structures](#) home page.

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If you have suggestions, corrections, or comments, please get in touch with [Paul E. Black](#).

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